Application/Control Number: 09/781,445
Art Unit: 2664

Docket No.: 112063CIP

REMARKS

Reconsideration and allowance are requested. Claims 1 - 22 are pending and no claims are amended.

Rejection of Claims 1, 2, 5-9 and 10, 11, 14-18 and 19-22 under 35 U.S.C. § 103(a)

The Examiner rejects claims 1, 2, 5-9 and 10, 11, 14-18 and 19-22 under 35 U.S.C. §103(a) as being unpatentable over Alamouti et al. U.S. Publication No. 2003/0156570 ("Alamouti") in view of Kapoor et al., U.S. Patent No. 6,795,424 ("Kapoor"). Applicants traverse this rejection and respectfully submit that there is no reason to combine these references and furthermore, even if combined, they still fail to teach each claim limitation.

Applicants note that the Alamouti references was not included on the PTO-892 form and requests that this be added and returned in the next correspondence. The Alamouti publication has also issued as U.S. Patent No. 6,853,629, which is probably the more appropriate reference to use for this publication and should also be cited on a PTO-892.

We now turn to claim 1. To establish a *prima facie* case of obviousness, the Examiner must meet three criteria. First, there must be some motivation or suggestion, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to combine the references. Second, there must be a reasonable expectation of success, and finally, the prior art references must teach or suggest all the claim limitations. The Examiner bears the initial burden of providing some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." MPEP 2142.

Applicants respectfully submit that with respect to claim 1, the Examiner has failed to carry his burden of establishing a prima facie case of obviousness. The Examiner references Alamouti and Kapoor and discusses some motivation for combining these references. Applicants traverse this reasoning and will explain why one of skill in the art would not have motivation to combine these references. The Examiner asserted that Alamouti disclosed each limitation of claim 1 except the limitation where the channel performance is based on a combining technique different from the interference technique. To clarify, the limitation of claim 1 recites a means for selecting a channel at the transmitter based on channel performance at the receiver for each of the at least to transmission channels, wherein the channel performance is based on a combining technique different from the interference suppression technique.

The Examiner argues that where Alamouti fails to teach this limitation, Kapoor fills in the gap and therefore the combination teaches each limitation of claim 1. However, the Examiner never states that Kapoor teaches this technique for channel selection. The reasons that the Examiner provides is not channel selection but is based on a diversity combining techniques. What we shall see in the analysis herein is that Alamouti barely mentions channel selection and Kapoor does not teach any technique regarding channel selection.

The only reference to "selecting a channel" in Alamouti is found in paragraph [0223] wherein they state that to chose the best channel, the receiving unit must make measurements on some number of channels and report the results to the base station. The measurements include the received signal strength indicator (RSSI) and the signal to interference ratio (SINR) information. The information from these signal indicators is used to assign channels to incoming receiving units. The Examiner also referenced paragraph [0267] as being part of the teachings related to selecting a channel. However, this paragraph begins the diversity discussion in the reference and simply do not discuss the process of selecting a channel.

Therefore, the only teachings from Alamouti regarding the process of how to determine what channel to select are found in paragraph [0223] and are simply based on either the RSSI or the SINR information to assign channels to including receiving units. In this regard, Alamouti simply teaches away from or teaches a different approach to channel selection than is recited in claim 1. Since Alamouti only teaches using RSSI or SINR for selecting a channel, for the Section 103 rejection to be sustained, the Examiner must identify that Kapoor teaches this limitation and then establish a prima facie case of motivation or suggestion to blend that teachings with Alamouti. In fact, *if* Kapoor did teach this limitation of claim 1, there would have to be some suggestion to replace the RSSI or SINR channel selection approach of Alamouti with the claimed approach. No such suggestion exists.

The Examiner also discusses diversity combining approaches from various sources but fails to identify a channel selection mechanism taught by Kapoor. Applicants could not find any reference in Kapoor to channel selection at the transmitter based on channel performance at the receiver in the manner recited in claim 1. Applicants respectfully request that if the Examiner can identify a channel selection process in Kapoor that this process be identified and further that the Examiner set forth the prima facie case for combining these references to reject claim 1.

The Examiner has also not provided sufficient reasoning as required by the MPEP for one of skill in the art to have any motivation to combine these references. The Examiner stated that it would be obvious to one of skill in the art to apply Kapoor's method and apparatus for interference suppression in OFDM wireless communication systems into Alamouti's frequency division system with the motivation being to provide a method and system for establishing a wireless communication utilizing diversity combining techniques. The Examiner states that one skilled in the art would recognize the need for effectively and efficiently facilitating the operation of antenna diversity combining techniques in selection a transmission channel. O.A., page 7. The Examiner asserts that these diversity techniques can

be supplied from Kapoor and that because Kapoor teaches these diversity techniques, one of skill in the art would have motivation to utilize these teachings.

Applicants traverse this reasoning because beginning at paragraph [0267] of Alamouti, he discusses a variety of diversity techniques including space diversity in paragraph [0269] which utilizes multiple remote station receiving antennas to provide diversity reception. A variety of forms of diversity combining such as frequency diversity and polarization diversity are discussed by Alamouti. FIG. 5 of Kapoor simply shows spatial diversity as is already mentioned in Alamouti. In other words, Alamouti already is replete with discussion regarding various types of diversity combining, and yet only referenced using RSSI and SINR when channel selection occurs. Therefore, Applicants respectfully traverse the Examiner's reasoning that one of skill in the art would find motivation to blend the teachings of Kapoor because of the desire for information regarding diversity combining techniques. Such effort would be duplicative of what Alamouti already teaches.

Applicants further submit that there is no reason to combine these references because Alamouti already teaches the RSSI or SINR channel selection method and Kapoor provides no additional insight or teachings regarding channel selection. As mentioned above, Alamouti already discusses various diversity combining techniques. One of skill in the art would not find it obvious to combine these references because with regards to channel selection, there is no advantage gained from the teachings of Kapoor regarding channel selection and any blending of diversity techniques from Kapoor would be redundant. Furthermore, based on the discussion above, even if these references were combined, Kapoor simply fails to teach the necessary limitation to match each element of claim 1. Therefore, for these reasons, Applicants submit that claim 1 is patentable and in condition for allowance.

Claims 2 and 5 - 9 each depend from claim 1 and recite further limitations therefrom. Accordingly, Applicants submit that these claims are patentable for the same reasons set forth above.

Similarly, claims 10, 11, 14 - 18, 19 and 21 are each patentable for the same reasons set forth above regarding why these two references should not be combined and why they fail to teach each claim limitation.

Rejection of Claims 3-4 and 12-13 Under 35 U.S.C. § 103(a)

The Examiner rejects claims 3-4 and 12-13 under 35 U.S.C. § 103(a) as being unpatentable over Alamouti in view of Kapoor as applied to the claims above, and further in view of Bevan et al., U.S. Patent No. 6,415,149 to Bevan.

Inasmuch as claims 3 - 4 and 12 - 13 depend from claims discussed above, Applicants submit that these claims are patentable because the primary references should not be legally combined to reject the parent claims and even if combined, they still fail to teach each claim limitation of the parent claims. Therefore, Applicants submit that these claims are patentable and in condition for allowance.

CONCLUSION

Having addressed the rejection of claims, Applicants respectfully submit that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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